What is claimed is:

[c1] 1.A method for interfacing a data link protocol engine and a physical layer component, comprising the steps of:
sending a parameter setting message to the physical layer component;
sending a handshaking tone or pattern detection request message to the physical layer component;
receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected;
sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted; and
receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

[c2] 2.The method of claim 2, further comprising the step of receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.

[c3] 3.The method of claim 1, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.

[c4] 4.The method of claim 3, further comprising the step of determining whether the mode is a framing or nonframing mode.

[c5] 5.The method of claim 1, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.

[c6] 6.The method of claim 5, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized tones.

[c7] 7.The method of claim 1, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.

[c8] 8.The method of claim 1, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.

[c9] 9.A system for interfacing a data link protocol engine and a physical layer component, comprising:
means for sending a parameter setting message to the physical layer component;
means for sending a handshaking tone or pattern detection request message to the physical layer component;
means for receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected;
means for sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted; and
means for receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

[c10] 10.The system of claim 9, further comprising means for receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.

[c11] 11.The system of claim 9, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.

[c12] 12.The system of claim 11, further comprising means for determining whether the mode is a framing or nonframing mode.

[c13] 13.The system of claim 9, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.

[c14] 14.The system of claim 13, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized

tones.

[c15] 15.The system of claim 9, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.

[c16] 16.The system of claim 9, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.

[c17] 17.A computer readable medium incorporating one or more instructions for interfacing a data link protocol engine and a physical layer component, the instructions comprising:

one or more instructions for sending a parameter setting message to the physical layer component;

one or more instructions for sending a handshaking tone or pattern detection request message to the physical layer component;

one or more instructions for receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected;

one or more instructions for sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted; and

one or more instructions for receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

[c18] 18.The computer readable medium of claim 17, the instructions further comprising one or more instructions for receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.

[c19] 19.The computer readable medium of claim 17, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.

[c20] 20.The computer readable medium of claim 19, the instructions further comprising one or more instructions for determining whether the mode is a framing or nonframing mode.

[c21] 21.The computer readable medium of claim 17, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.

[c22] 22.The computer readable medium of claim 21, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized tones.

[c23] 23.The computer readable medium of claim 17, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.

[c24] 24.The computer readable medium of claim 17, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.